

REMARKS

1. Issuance of a Notice of Allowance is respectfully solicited.

2. Status

Upon entry of this paper, claims 1-13 and 16-18, will be pending. Previously, claims 1-15, were pending. In interest of receiving an early Notice of Allowance, and without acceding to any of the Examiner's statements characterizing the claims and/or the cited references, claims 1-13 are amended to recite certain features of embodiment(s) of the invention more clearly; claims 14-15 are canceled without prejudice or disclaimer; and new claims 16-18 are added.

In particular, a particular form of metal foil, e.g., "tungsten", which was recited in claim 2 as originally filed, has been removed from claim 2 and placed in claim 16, which is dependent on claim 2. Thus, no new matter is added and no new search is necessary.

New independent claim 17 is added, and recites a feature recited in claim 6 as originally filed. New dependent claim 18 is added, which depends from claim 17. Claim 18 recites subject matter recited in claim 1 as originally filed. Thus, no new matter is added.

3. Telephone Interview

Applicant appreciates the courtesies extended by the Examiner during the impromptu telephone interview of August 18, 2008, which Applicant initiated to clarify the status of claims 6 and 7, which depend from claim 1, and which were only rejected under 35 U.S.C. §112, second paragraph as being indefinite.

The Examiner indicated that a further search might be required, but that for the time being, Applicant could consider the subject matter of claims 6 and 7 to be allowable, provided each was amended to overcome the 35 U.S.C. §112 rejection.

4. Allowable Subject Matter

Claims 6 and 7, which depend from claim 1, were only rejected under 35 U.S.C. §112, second paragraph as being indefinite, and are amended for clarity and to provide proper antecedent basis. As neither the subject matter of claim 6 nor the subject matter of claim 7 was rejected under 35 U.S.C. §§101, 102, or 103, the Examiner is respectfully requested to indicate whether the subject matter of claims 6 and 7 is allowable.

5. Claim Rejections

a. Indefiniteness.

Claims 1-15 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite, and have been amended to overcome this objection, withdrawal of which is earnestly solicited.

b. Anticipation.

Claims 1, 5, and 10-15 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by KUTSCHERA (USPN 6,735,283). Applicant amends claim 1 for clarity only, cancels claims 14 and 15, and respectfully traverses the merits of this rejection, withdrawal of which is earnestly solicited.

Kutschera is directed to an x-ray tube, which has a rotating anode (11) and a cathode (3). The cathode is configured to emit electron beams to a focal path (12) on the anode, which subsequently emits x-ray radiation. The focal path (12) is of a meltable target material, which is a “material that changes from solid into the liquid solid state due to the heating of the anode (11).” The anode (11) contains a “carrier part(13) composed of a material that does not melt...” To prevent the meltable target material from being spun off the rotating anode (11), “the carrier part (13) is provided with a suitably fashioned edge (15).” See, e.g., Abstract, Col. 3:43 to Col. 4:10, FIGS. 1, 2, 3, etc.

Additionally, Kutschera’s anode (11) “is arranged with reference to the cathode (3) so that the x-rays are emitted at a flat angle (α), and can emerge through a beam exit window (14) peripherally arranged in the vacuum housing (2).” (emphasis added) See, e.g., Col. 4:7-10. In one embodiment, the cathode (3) is shielded from ions and anode vapor by “partitions 20.” “Expediently, the partitions 20 can be part of the vacuum housing and are provided with diaphragm 21 in the region of the beam passage, said diaphragm 21 being largely transmissive for electrons....” (emphasis added) See, e.g., Col. 4:47-55, FIGS. 2 and 3, etc.

For convenience, Kutschera’s FIG. 3 is shown below, on the left side. Applicant’s FIG. 1, which depicts features recited in independent claims 1 and 17 is also shown below, on the right side.

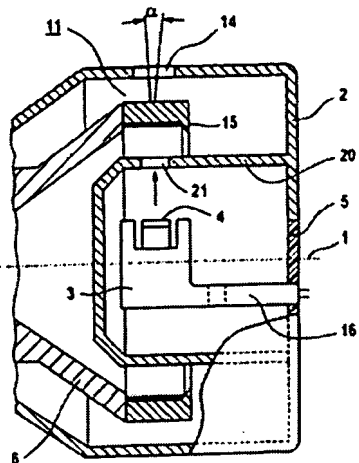


FIG 3

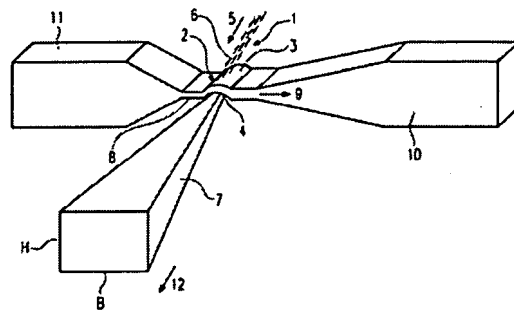


Fig. 1

Comparing Kutschera's description and these two figures, Kutschera clearly fails to disclose "an electron entry window on the anode module in a region of focus," as recited in independent claims 1 and 17. In Applicant's FIG. 1, the anode module is depicted by reference number (1), the region of focus is depicted by reference number (2), and the electron entry window is depicted by reference number (3).

In fact, Kutschera teaches away from Applicant's claimed invention by disclosing formation of an electron entry window (e.g., diaphragm 21), not on the anode (11), but rather in a "projection 20"; and by disclosing formation of an electron exit window (14), not on the anode (11), but rather "peripherally arranged in the vacuum housing (2)."

Consequently, Kutschera fails to anticipate each and every feature recited in independent claims 1 and 17.

Accordingly, Applicant respectfully submits that claims 1 and 17 are in condition for allowance. Further more, claims 2-13, and 16, depending from claim 1, and claim 18, depending from claim 17, are also allowable, at least for the reasons discussed above, as well as for their respective features.

Moreover, Kutschera also fails to disclose: "wherein the electron entry window is convexly curved perpendicular to a direction of flow of the liquid metal" as recited by claims 6 and 17. Additionally, Kutschera fails to disclose: "wherein the x-ray beam exit window is concavely curved perpendicular to a direction of flow of the liquid metal," as recited in claim 7.

c. Obviousness.

Claims 2-4, 8, 9 were rejected under 35 U.S.C. § 103(a) as allegedly being rendered obvious by Kutschera in view of a skilled artisan's knowledge. Applicant respectfully traverses the merits of this rejection, on the basis that Kutschera has been removed as a reference under 102(e) with respect to allowable independent claim 1, from which claims 2-4, 8 and 9 depend. Accordingly, withdrawal of this rejection is earnestly solicited.

CONCLUSIONS

In view of the foregoing, Applicant respectfully submits that this application is now in condition for allowance and should now be passed to issue. Favorable action is requested.

The Examiner is respectfully invited to contact the undersigned if there are any remaining issues that can be resolved by telephonic communication.

Respectfully submitted,

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